

unveil concrete adherence difficulties, especially the underlying reasons.

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### Process evaluation of a pharmacist-led intervention aimed at the deprescribing of cardiovascular and antidiabetic medication in a cluster-randomized controlled trial

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**Background:** Deprescribing inappropriate cardiovascular and diabetes medication has shown to be feasible and safe. Healthcare providers (HCPs) often experience the deprescribing of this medication as a challenge and therefore it is still not widely implemented. In the LeMON trial we assessed in a cluster-randomized trial involving 20 community pharmacists whether a training focused on conducting deprescribing-oriented clinical medication reviews (CMRs) decreased the number inappropriate cardiovascular and diabetes medication.

**Purpose:** The aim of this study was to gain insight into the implementation and normalisation of deprescribing of antihypertensives and oral antidiabetics within the context of a CMR.

**Method:** A mixed method process evaluation involving the intervention group pharmacists. They were provided a two hour digital training how to deprescribe the medication involved. Patient experiences and satisfaction were assessed using the Patient Reported Experience Measure (PREM) and Treatment Satisfaction Questionnaire for Medication (TSQM). Semi-structured interviews were conducted with the intervention pharmacists. Interview questions were based on the constructs of the Extended Normalization Process Theory (eNPT).

**Findings:** Overall PREM and TSQM scores were high for both control (n=26) and intervention (n=36) patients. The PREM statement ‘I trust the pharmacist’ was scored as (strongly) agreed by 77.8% and 96.2% (p=0.037) of control and intervention patients. The PREM statement ‘What I would like to change in my medication’ was scored as (very) important by 46.2% and 30.6% (p=0.029) of control and intervention patients. The TSQM question ‘How satisfied or dissatisfied are you with how often you have to use or take the medication?’ was scored as (very or extremely) satisfied by 71.3% and 86.1% (p=0.022) of the control and intervention patients. Pharmacist interviews showed that they had experienced a shared commitment with GPs towards deprescribing. Some had found it difficult to recommend deprescribing in the absence of side effects or when a medical specialist is involved in the treatment of the patient. They would recommend the training to other pharmacists, and were positive on performing more deprescribing-focused CMRs. This, however, would require more CMR time and reimbursement.

**Conclusion:** A deprescribing-focused CMR increases trust in pharmacists. Deprescribing can be performed within the current CMR framework. The results highlight the importance of HCP collaboration in deprescribing cardiovascular and diabetes medication and the need for sufficient resources to support this CMR process.

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### Benefits of Integrating Virtual Patients in Pharmaceutical Care Education to Enhance Self-Medication Consultation Skills

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**Background:** The development of highly qualified healthcare specialists who can deal with the professional challenges in real practice requires pharmacy students to receive robust theoretical and practical training. Virtual patients are being implemented in pharmacy education across various countries in order to learn different techniques to improve communication skills, identify drug-related problems, assess the pharmacist's role in the self-medication process or assess students' knowledge acquisition.

**Purpose:** The objective of the study was to assess the benefits of integrating virtual patients in pharmacy education, particularly their impact on pharmacy students' knowledge and skills in self-medication counselling.

**Material and Methods:** A systematic review was conducted using PubMed, Scopus and Web of Science databases. The search strategy included the following keywords: (“self-medication” OR “self-care”) AND (“virtual patient” OR “digital patient”) AND (“pharmacy students”) AND (pharmaceutical care education). Topics related to the integration of virtual patients in the education of pharmacy students and the impact on self-medication counselling skills were evaluated. The inclusion criteria were full-text, peer-reviewed research articles, written in English. No publication date limits were set.

**Findings:** A total of 290 articles were identified through electronic databases and 11 met the inclusion criteria. Eight studies were conducted in the USA followed by three in Portugal and one each in Iran and the United Arab Emirates. Most studies employed a pre-post-study design. Key outcomes covered in analyzed articles included improvements in knowledge score, communication, and consultation skills, along with positive perceptions like increased student satisfaction and confidence levels.

**Conclusion:** Using virtual patients in pharmacy education positively impacts students by enhancing their theoretical knowledge as well as their practical communication and decision-making skills. The ability to provide feedback on students' performance after solving specific case scenarios using virtual patients is important for reinforcing their learning and professional development.

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### Therapy-related Determinants influencing Medication Non-Adherence: A Systematic Review

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**Background:** Medication non-adherence remains a critical challenge in healthcare, significantly impacting treatment outcomes and increasing healthcare costs. According to the World Health Organization (WHO), the factors contributing to non-adherence are categorized into five dimensions: socio-economic factors, healthcare system-related issues, condition-specific factors, patient-related barriers and therapy-related factors. Despite the recognized importance of therapy-related factors—such as regimen complexity, side effects, and treatment duration—research focusing specifically on this dimension is scarce.

**Purpose:** This systematic review seeks to compile and analyse the latest evidence on the determinants of medication non-adherence, with a particular focus on factors related to the therapy itself.

**Method:** A systematic review is being conducted in accordance with the PRISMA guidelines. A comprehensive search has been performed across the PubMed, EMBASE, Web of Science, and PsycINFO databases using a predefined search strategy. Only studies published in English with full-text availability are included. Records have been screened by reading titles and abstracts and full-text articles are currently being reviewed. Articles are being selected based on predefined inclusion and exclusion criteria, and their methodological quality will be